

## **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 1-32 and 48-50 were pending in this Application. Claims 33-48 have been cancelled without prejudice to further prosecution on the merits. Claims 1, 2, 4, 7-11, 13-15, 19, 26-28, 49, and 50 are currently being amended. Claims 51-54 are being added. After amending the claims as set forth above, claims 1-32 and 49-54 are now pending in this application.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

### **Substance of the Telephonic Interview**

The Applicants thank the Examiner for conducting a telephonic interview on December 16, 2003, and the Interview Summary dated December 17, 2003. During the Telephone Interview the claims, U.S. Patent No. 6,284,183 (Roys et al.), and the final Office Action were discussed. The Examiner provided suggestions for amendments to the claims. No agreement was reached. (The amendments made to the independent claims are intended to incorporate the Examiner's suggestions and are believed to be allowable.)

### **Claim Objections**

In Section 5 of the Office Action, the Examiner objected to Claim 19 "because of the following informality: the claim does not end as it has no period." Claim 19 has been amended to add a period. The Applicant requests withdrawal of this objection.

In Section 6 of the Office Action, the Examiner objected to Claim 50 "because of the following informalities: the claim contains the word "beetween". This appears to be a misspelling of -between--" Claim 50 has been amended to correct the spelling of between. The Applicant requests withdrawal of this objection.

### **Specification Objection**

In Section 7 of the Office Action, the Examiner objected to the Specification as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 12 states the covalent adhesive is an olefinic material. The specification only discloses a chlorinated polyolefin. However, the original claims

supported the covalent adhesive being an olefin. Therefore applicant must either change "polyolefin" in the claim to – chlorinated polyolefin—or add "olefinic" to the type of adhesive described in the specification.

Paragraph [0034] of the Specification has been amended to incorporate subject matter from the original claims. No new matter has been added. The Applicant requests withdrawal of the objection to the Specification.

#### **Claim Rejections – 35 U.S.C. § 112 ¶ 1**

In Section 2 of the Office Action, the Examiner rejected Claims 1-32 and 48-50 under 35 U.S.C. § 112 ¶ 1 as failing to comply with the written description requirement. The Examiner stated that the

claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose a thermoplastic layer between the bonding layer and the substrate. It discloses either a thermoplastic polyolefin[0032] or an acrylic layer[0043], depending on which layer applicant is referring to. While the specification discloses a thermoplastic melting point, this It is suggested that thermoplastic be changed to –thermoplastic polyolefin--.

The amendments made to the claims render this rejection moot because these limitations are no longer in the claims. The Applicant requests withdrawal of the rejection of Claims 1-32 and 48-50 under 35 U.S.C. § 112 ¶ 1.

#### **Claim Rejections – 35 U.S.C. § 112 ¶ 2**

In Section 4 of the Office Action, the Examiner rejected Claims 7, 17, and 50 under 35 U.S.C. § 112 ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

Regarding Claim 7, the Examiner stated "it is unclear which layers are being bonded together as the claim indicates the second exterior surface is joined to itself. It is suggested that either "second" in line 2 or line 3 be changed to –first--." Claim 7 has been amended and is definite and in compliance with 35 U.S.C. § 112 ¶ 2.

Regarding Claim 17, the Examiner stated that "it is unclear how a thermoplastic layer can be present in the independent claim, but not be present in the dependent claim." The rejection of Claim 17 appears to be moot in view of the amendment to Claim 1.

Regarding Claim 50, the Examiner stated that "it is unclear what is meant by a backing sheet not being present as the thermoplastic layer is disclosed as the backing sheet in the specification." The Applicant submits that one embodiment disclosed in the Specification had a backing sheet (as shown in Figure 2), but other embodiments disclose the structure without the use of a backing sheet (see, e.g., Figure 5). See Interview Summary dated December 17, 2003.

The Applicant requests withdrawal of the rejection of Claims 7, 17, and 50 under 35 U.S.C. § 112 ¶ 2.

### **Claim Rejections – 35 U.S.C. § 102**

In Section 9 of the Office Action, the Examiner rejected Claims 1, 4, 5, 7, 8, 16, 17, 19, 21, 27, 31, 32, and 48-50 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,284,183 ("Roys et al."). In Section 10 of the Office Action, the Examiner rejected Claims 6, 11-15, and 30 under 35 U.S.C. § 102(e) as being anticipated by Roys et al.

Roys et al. is directed to processes that use backing sheets (see Roys et al. at col. 5, line 41 to col. 7, line 4; and Figures 2 and 3).

Claim 1 is in independent form and recites a "method for forming a three-dimensional polymeric structure" comprising, in combination with other elements, providing a "bonding layer [that] comprises a chlorinated polyolefin" and "joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate." Claims 4, 5, 7, 8, 16, 17, 19, and 21 depend from independent Claim 1. (Claim 48 has been cancelled.)

Roys et al. does not identically disclose a "method for forming a three-dimensional polymeric structure" comprising, among other elements, providing a "bonding layer [that] comprises a chlorinated polyolefin" and "joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate" as recited in independent Claim 1. The rejection of Claim 1 over Roys et al. is improper. Claim 1 is patentable over Roys et al.

Claim 27 is in independent form and recites a "method for forming a thermoformable panel" comprising, in combination with other elements, providing a "bonding layer including . . . an adhesive activation temperature of approximately 270 degrees Fahrenheit" and "joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form a thermoformable panel using heat from the structural

sheet to activate adhesive properties of the bonding layer when the structural sheet is at a temperature which is greater than the adhesive activation temperature of the bonding layer.”

Claims 31 and 32 depend from independent Claim 27.

Roys et al. does not identically disclose a “method for forming a thermoformable panel” comprising, among other elements, providing a “bonding layer including . . . an adhesive activation temperature of approximately 270 degrees Fahrenheit” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form a thermoformable panel using heat from the structural sheet to activate adhesive properties of the bonding layer when the structural sheet is at a temperature which is greater than the adhesive activation temperature of the bonding layer” as recited in independent Claim 27. The rejection of Claim 27 over Roys et al. is improper. Claim 27 is patentable over Roys et al.

Claim 49 is in independent form and recites a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer including . . . an adhesive activation temperature” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel when the structural sheet is at a temperature greater than the adhesive actuation temperature and between approximately 270 degrees Fahrenheit and approximately 300 degrees Fahrenheit.”

Roys et al. does not identically disclose a “method for forming a thermoformable panel” comprising, among other elements, providing a “bonding layer including . . . an adhesive activation temperature” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel when the structural sheet is at a temperature greater than the adhesive actuation temperature and between approximately 270 degrees Fahrenheit and approximately 300 degrees Fahrenheit” as recited in independent Claim 49. The rejection of Claim 49 over Roys et al. is improper. Claim 49 is patentable over Roys et al.

Claim 50 is in independent form and recites a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer [that] comprises a covalent adhesive” and “joining the first surface directly to the second surface so that the bonding layer is in direct contact with the substrate to form the

thermoformable panel without using a backing sheet between the at least one paint layer and the structural sheet.”

Roys et al. does not identically disclose a “method for forming a thermoformable panel” comprising, among other elements, providing a “bonding layer [that] comprises a covalent adhesive” and “joining the first surface directly to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel without using a backing sheet between the at least one paint layer and the structural sheet” as recited in independent Claim 50. The rejection of Claim 50 over Roys et al. is improper. Claim 50 is patentable over Roys et al.

Dependent Claims 4, 5, 7, 8, 16, 17, 19, 21, 31, and 32, which depend from independent Claims 1, 27, 49, and 50, are also patentable. See 35 U.S.C. § 112 ¶ 4.

Applicant respectfully request withdrawal of the rejection of Claims 1, 4, 5, 7, 8, 16, 17, 19, 21, 27, 31, 32, 49, and 50 under 35 U.S.C. § 102(e).

#### **Claim Rejections – 35 U.S.C. § 103(a)**

In Section 12 of the Office Action the Examiner rejected Claims 1, 4-15, 19-27, 30-32, 49, and 50 as being obvious over Roys et al. (as single reference) under 35 U.S.C. § 103(a).

In Section 13 of the Office Action the Examiner rejected Claims 2, 3, 28, and 29 as being obvious over Roys et al. in view of U.S. Patent No. 5,800,657 (“Hooper et al.”) under 35 U.S.C. § 103(a).

In Section 14 of the Office Action the Examiner rejected Claims 18 and 22-25 as being obvious over “the admitted prior art” in view of Roys et al. under 35 U.S.C. § 103(a).

Roys et al. is directed to processes that use backing sheets (col. 5, line 41 to col. 7, line 4; and Figures 2 and 3).

Hooper et al. is directed to a “method of forming an intermittent stabilized length of a co extruded trim strip product” (Abstract). The trim strip product includes a “thermoplastic strip” 26, a “stabilizing insert “ 40, and another “thermoplastic strip” 30 (see Figure 2).

Belyeu is directed to a “transparent kayak/canoe hull” (not a laminate).

### **Independent Claim 1**

Independent Claim 1 (as amended) is in independent form and recites a “method for forming a three-dimensional polymeric structure” comprising, in combination with other elements, providing a “bonding layer [that] comprises a chlorinated polyolefin” and “joining the first surface to the second surface to that the bonding layer is in direct contact with the substrate.” Claims 2-15 and 19-26 depend from independent Claim 1 (as amended).

The “method for forming a three-dimensional polymeric structure” recited in independent Claim 1 (as amended) would not have been obvious in view of Roys et al., alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a). Roys et al. alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu does not disclose, teach or suggest a “method for forming a three-dimensional polymeric structure” comprising, in combination with other elements, providing a “bonding layer [that] comprises a chlorinated polyolefin” and “joining the first surface to the second surface to that the bonding layer is in direct contact with the substrate.” To transform Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu into a “method for forming a three-dimensional polymeric structure” (as recited in Claim 1) would require still further modification, and such modification is taught only by Applicant’s own disclosure. The suggestion to make the combination of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu has been taken from Applicant’s own specification (using hindsight), which is improper.

The “method for forming a three-dimensional polymeric structure” recited in independent Claim 1, considered as a whole, would not have been obvious in view of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu. The rejection of Claim 1 over Roys et al. in view of “admitted prior art,” Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a) is improper. Therefore, Claim 1 is patentable over Roys et al. in view of “admitted prior art,” Hooper et al. and/or Belyeu.

Dependent Claims 2-15 and 19-26, which depend from independent Claim 1, are also patentable. See 35 U.S.C. § 112 ¶ 4.

Applicant respectfully request withdrawal of the rejection of Claims 1-15 and 19-26 under 35 U.S.C. § 103(a).

### **Independent Claim 27**

Claim 27 (as amended) is in independent form and recites a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer including . . . an adhesive activation temperature of approximately 270 degrees Fahrenheit” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form a thermoformable panel using heat from the structural sheet to activate adhesive properties of the bonding layer when the structural sheet is at a temperature which is greater than the adhesive activation temperature of the bonding layer. Claims 30-32 depend from independent Claim 27 (as amended).

The “method for forming a thermoformable panel” recited in independent Claim 27 (as amended) would not have been obvious in view of Roys et al., alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a). Roys et al. alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu does not disclose, teach or suggest a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer including . . . an adhesive activation temperature of approximately 270 degrees Fahrenheit” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form a thermoformable panel using heat from the structural sheet to activate adhesive properties of the bonding layer when the structural sheet is at a temperature which is greater than the adhesive activation temperature of the bonding layer. To transform Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu into a “method for forming a thermoformable panel” (as recited in Claim 27) would require still further modification, and such modification is taught only by Applicant’s own disclosure. The suggestion to make the combination of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu has been taken from Applicant’s own specification (using hindsight), which is improper.

The “method for forming a thermoformable panel” recited in independent Claim 27, considered as a whole, would not have been obvious in view of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu. The rejection of Claim 27 over Roys et al. in view of “admitted prior art,” Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a) is improper. Therefore, Claim 27 is patentable over Roys et al. in view of “admitted prior art,” Hooper et al. and/or Belyeu.

Dependent Claims 30-32, which depend from independent Claim 27, are also patentable. See 35 U.S.C. § 112 ¶ 4.

Applicant respectfully request withdrawal of the rejection of Claims 27 and 30-32 under 35 U.S.C. § 103(a).

#### **Independent Claim 49**

Claim 49 (as amended) is in independent form and recites a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer including . . . an adhesive activation temperature” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel when the structural sheet is at a temperature greater than the adhesive actuation temperature and between approximately 270 degrees Fahrenheit and approximately 300 degrees Fahrenheit.”

The “method for forming a thermoformable panel” recited in independent Claim 49 (as amended) would not have been obvious in view of Roys et al., alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a). Roys et al. alone or in any proper combination with “admitted prior art,” Hooper et al. and/or Belyeu does not disclose, teach or suggest a “method for forming a thermoformable panel” comprising, in combination with other elements, providing a “bonding layer including . . . an adhesive activation temperature” and “joining the first surface to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel when the structural sheet is at a temperature greater than the adhesive actuation temperature and between approximately 270 degrees Fahrenheit and approximately 300 degrees Fahrenheit.” To transform Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu into a “method for forming a thermoformable panel” (as recited in Claim 49) would require still further modification, and such modification is taught only by Applicant’s own disclosure. The suggestion to make the combination of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu has been taken from Applicant’s own specification (using hindsight), which is improper.

The “method for forming a thermoformable panel” recited in independent Claim 49, considered as a whole, would not have been obvious in view of Roys et al., “admitted prior art,” Hooper et al. and/or Belyeu. The rejection of Claim 49 over Roys et al. in view of “admitted



prior art," Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a) is improper. Therefore, Claim 49 is patentable over Roys et al. in view of "admitted prior art," Hooper et al. and/or Belyeu.

Applicant respectfully request withdrawal of the rejection of Claim 49 under 35 U.S.C. § 103(a).

### **Independent Claim 50**

Claim 50 (as amended) is in independent form and recites a "method for forming a thermoformable panel" comprising, in combination with other elements, providing a "bonding layer [that] comprises a covalent adhesive" and "joining the first surface directly to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel without using a backing sheet between the at least one paint layer and the structural sheet."

The "method for forming a thermoformable panel" recited in independent Claim 50 (as amended) would not have been obvious in view of Roys et al., alone or in any proper combination with "admitted prior art," Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a). Roys et al. alone or in any proper combination with "admitted prior art," Hooper et al. and/or Belyeu does not disclose, teach or suggest a "method for forming a thermoformable panel" comprising, in combination with other elements, providing a "bonding layer [that] comprises a covalent adhesive" and "joining the first surface directly to the second surface so that the bonding layer is in direct contact with the substrate to form the thermoformable panel without using a backing sheet between the at least one paint layer and the structural sheet." To transform Roys et al., "admitted prior art," Hooper et al. and/or Belyeu into a "method for forming a thermoformable panel" (as recited in Claim 50) would require still further modification, and such modification is taught only by Applicant's own disclosure. The suggestion to make the combination of Roys et al., "admitted prior art," Hooper et al. and/or Belyeu has been taken from Applicant's own specification (using hindsight), which is improper.

The "method for forming a thermoformable panel" recited in independent Claim 50, considered as a whole, would not have been obvious in view of Roys et al., "admitted prior art," Hooper et al. and/or Belyeu. The rejection of Claim 50 over Roys et al. in view of "admitted prior art," Hooper et al. and/or Belyeu under 35 U.S.C. § 103(a) is improper. Therefore, Claim 50 is patentable over Roys et al. in view of "admitted prior art," Hooper et al. and/or Belyeu.

Applicant respectfully request withdrawal of the rejection of Claim 50 under 35 U.S.C. § 103(a).

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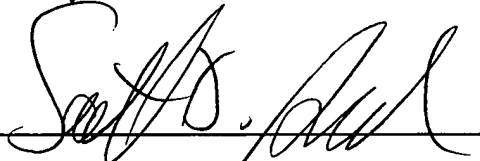
The Applicant respectfully submit that each and every outstanding objection and rejection has been overcome, and the present Application is in a condition for allowance. The Applicant request reconsideration and allowance of pending Claims 1-32 and 49-54.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to the Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extension fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 1/23/04

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